U.S. DOT VOLPE CENTER'S
SOUTHEAST BALTIMORE DEVELOPMENT SCENARIOS

Objective

To understand the transportation system impacts of anticipated growth

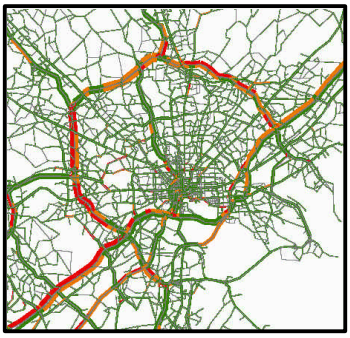
Types of Models

(1) Planning (macro)

- Considers impacts of a set of changes
- Captures shifts in traffic flows
- Estimates transit usage

But . . .

- Not as good with intersection-level changes
- Does not address parking
- A "broad brush," does not focus on individual developments



(2) Intersection level

- Deals with performance of an intersection or small set of intersections under a given traffic flow
- Typically used to evaluate an individual development
- Will be used later in this project

Constructing the Model

1. Started with regional model from Baltimore Metropolitan Council (year 2000 baseline)
2. Constructed year 2004 baseline based on recently opened development
3. Adjusted speeds and capacities on some links so that modeled traffic flows would better match observed flows in the study area
4. Constructed full development scenario (Full Development 1) based on data from Baltimore City Planning Department. This incorporates:
   - Approximately 20 developments within the study area including Inner Harbor East, Brewers Hill, and Canton Crossing
   - Planned development near Johns Hopkins just north of the study area
   - Planned development at Bayview
5. Constructed a second development scenario (Full Development 2), with higher volumes
   - Total household and employment numbers are increased by 15% over Full Development 1 for zones in the study area plus selected zones outside the study area (Johns Hopkins, Bayview)

Results: Reading the Maps

- Line thickness corresponds to traffic volume.
- Line color corresponds to anticipated traffic congestion:
    - Green (limited congestion)
    - Orange (moderate congestion)
    - Red (congested)
- Each map pertains to either the morning or evening peak hour.

Three Modeled Development Scenarios

1. 2004 Baseline
- Traffic congestion in the expected places (Fells Point, eastern part of Boston)

2. Full Development 1
- Somewhat worse traffic congestion in the expected places (Fells Point, eastern part of Boston)
- Shifts in traffic away from the study area to streets north of the area (e.g. Madison)
- Does not capture local intersection impacts well

3. Full Development 2
- Traffic impacts are similar to those in Full Development 1, except they are more severe, especially near Boston, Fleet, and Aliceanna.
- More traffic in streets north of the area (e.g. Madison)

Next Steps
- Obtain transit ridership and additional traffic count information. Continue to refine the models.
- Identify specific mitigation actions, and evaluate them with the appropriate tools.